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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,009	06/26/2001	Satchidanand Mishra	D/99021D	2624

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EXAMINER

NGUYEN, THUKHANH T

ART UNIT PAPER NUMBER

1722

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,009

Applicant(s)

MISHRA ET AL.

Examiner

Thu Khanh T. Nguyen

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-13 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-13 and 15-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 26 is objected to because this claim is depended on a canceled claim 14. For the purpose of examination, claim 26 is assumed to be depended on claim 10. Clarification and/or correction are required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 10-13, 15-17, 22, 24, and 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoffman (3,956,045).

Hoffman teaches an apparatus and method for bonding different film layers, comprising a support member (18) having a flat surface to receive and support a region of a flexible film (Fig. 2), a heatable member (19) having a smooth heatable flat surface for compressing and heating a portion of the seam region (col. 6, lines 10-21), wherein the heatable flat surface comprises a low surface energy or anti-adhesive material, such as a thin Teflon layer (col. 10, lines 55-53), a fluorocarbon layer or a polymer layer (col. 4, lines 13-14); wherein the heatable member could be a plastic strip (Fig. 22, 126, 127) aligned for centering over the seam, a compression heating bar (18, 19) or a rotatable compression rubber wheel (128, 129) which contacts the strip to compress the strip against the seam; wherein the heatable member could be a compression

heating bar having a smooth heatable flat surface aligned to contact and uniformly compress the entire seam from one edge to the other (Figs. 19-22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-13, 22-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi (4,461,662) in view of Schwarzkopf (3,551,259).

Onishi discloses an ultrasonic welding apparatus comprising a support member (1, 2, 12) with a flat surface for supporting the workpieces (P, Q), a heatable member (15) compressing the seam portion of the workpieces (Fig. 4), wherein the heatable member is a metal rotatable compression wheel (Fig. 2, 15) has a heatable flat smooth surface to heat a portion of the workpieces on the flat surface of the support means, and a heatable plastic strip (R, S); the heating surface of the wheel comprises adhesive material such as silicon (col. 4, lines 49-57); the compression wheel (15) is manually moved by a lift lever (23). However, Onishi fails to disclose that the support member comprises a non-adhesive material.

Schwarzkopf discloses an apparatus for heat-sealing two superimposed plied, comprising a heatable compress member (1), a support member (5) with a flat surface (10) made of Teflon and a silicon rubber pad (6) to provide a removable backing for the support member.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Onishi by providing a Teflon layer on the support member as taught by Schwarzkopf, because the Teflon layer would prevent the material from sticking to the support member during the heat welding process.

6. Claims 10-13, 15-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyse et al (4,746,391) in view of Hoffman (3,956,045).

Heyse et al disclose an apparatus for continuous welding or sealing of seams of plastic films, comprising a support member (2) for receiving and supporting the thermoplastic sheet material, a heatable member (3, 6, 7) having smooth surface with a profile parallel to the smooth surface of the support member, wherein the heatable member is a strip (3) aligned for centering over the seam, a compression wheel (6, 7) contacts the strip to compress the strip against the seam, wherein the strip comprises alloy steel, steel/chromium/nickel alloy, which is relatively high electrical resistance (col. 4, lines 33-35); the strip (3) includes a coating layer of anti-adhesive material to prevent overheating (col. 5, lines 57-61).

Heyse et al fail to disclose that the support member includes a flat support surface, and the heatable flat surface comprises an adhesive material.

Hoffman teaches an apparatus and method for bonding different film layers, comprising a support member (18) having a flat surface to receive and support a region of a flexible film (Fig. 2), a heatable member (19) having a smooth heatable flat surface for compressing and heating a portion of the seam region (col. 6, lines 10-21), wherein the heatable flat surface comprises a low surface energy or anti-adhesive material, such as a thin Teflon layer (col. 10, lines 55-53), a

fluorocarbon layer or a polymer layer (col. 4, lines 13-14); wherein the heatable member could be a plastic strip (Fig. 22, 126, 127) aligned for centering over the seam, a compression heating bar (18, 19) or a rotatable compression rubber wheel (128, 129) which contacts the strip to compress the strip against the seam; wherein the heatable member could be a compression heating bar having a smooth heatable flat surface aligned to contact and uniformly compress the entire seam from one edge to the other (Figs. 19-22).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Heyse et al by providing a flat support surface and a smooth heatable flat surface comprises Teflon as taught by Hoffman, because the flat support surface could be used as an alternative to the support roller, and the Teflon layer on the heatable flat surface would prevent the working material from sticking into the heating member.

In regard to claim 20, it will depend on the material used that the strip could be heated to different temperature. It is in the scope of Heyse et al to heat the strip (3) and the seam to about 2°C-25°C. However, this is a functional limitation of the heating strip. It has been held that a functional limitation asserted to be critical for establishing novelty might, in fact, be an inherent characteristic of the prior art. The applicants is required to prove that the subject matter shown in the prior art does not necessarily possess the characteristics relied on. In re Schreiber, 128 F. 3d 1473, 1478, 44 USPQ 2d, 1432 (Fed. Cir. 1997); See also, In re Spada, 911 F 2d 705, 708, 15 USPQ 2d 1655, 1658 (Fed. Cir. 1977); In re Best, 562 F. 2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977); and Ex Parte Gray, 10 USPQ 2d 1922, 1925 (Bd. Pat. App. & Int. 1989).

In regard to claims 21 and 25 the size of the strip will depend on the thickness of the sheet material, the heating duration, the amount of electric applied that one of ordinary skill in

the art could modify the size of the heating strip to provide a sufficient heating to the material. In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Response to Arguments

7. Applicant's arguments with respect to claims 10-13 and 15-27 have been considered but are moot in view of the new ground(s) of rejection.

The 35 U.S.C. § 102 rejections have been withdrawn because the new amended claims are no longer anticipated by the references. However, new rejections have been made as described above.

Hoffman ('045) and Schwarzkopf ('259) each discloses an apparatus for heat sealing film material and comprising a Teflon layer to prevent the working material from sticking into the sealing and the supporting members. Schwarzkopf does disclose an apparatus for heat-sealing at least two superimposed plies of synthetic thermoplastic sheeting; wherein a weakened tear line is disposed adjacent to the heat-sealed seam (see abstract).

Hoffman, Onishi, and Heyse disclose a plurality of different apparatuses for heat sealing two sheet of film layers, in which the seams are lay on either a flat support surface or a roller; and wherein the heatable member could either be a strip, a heating bar, or a rotatable compression heating wheel.

As disclosed in Hoffman and Schwarzkopf, a Teflon layer on the heatable member would prevent the material from sticking into the heatable member during the heat-sealing process. It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Onishi or Heyse by providing these references with a Teflon layer to improve the performance of the apparatus as taught by Hoffman or Schwarzkopf.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 703-305-7167. The examiner can normally be reached on Monday- Friday, 6:30-4:00.

Application/Control Number: 09/892,009

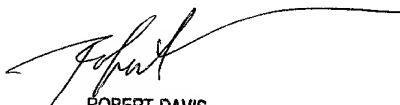
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

TN


ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300-1700
10/20/02